DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	TUXBURY POND	Lake Area (ha):	43.91
Town:	SOUTH HAMPTON	Maximum depth (m):	1.5
County:	Rockingham	Mean depth (m):	---
River Basin:	Merrimack	Volume (m^3):	---
Latitude:	42°52' N	Relative depth:	---
Longitude:	71°00' W	Shore configuration:	---
Elevation (ft):	95	Areal water load (m/yr):	---
Shore length (m):	6000	Flushing rate (yr^{-1}):	---
Watershed area (ha):	12407.8	P retention coeff.:	---
% watershed ponded:	4.8	Lake type:	natural

BIOLOGICAL:	17 February 1988	3 September 1987
DOM. PHYTOPLANKTON (% TOTAL) #1	NO SAMPLE COLLECTED	NO SAMPLE COLLECTED
#2		
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		
CHLOROPHYLL-A (ug/L)		4.20
DOM. ZOOPLANKTON (% TOTAL) #1	NO SAMPLE COLLECTED	NO SAMPLE COLLECTED
#2		
#3		
ROTIFERS/LITER		
MICROCRUSTACEA/LITER		
ZOOPLANKTON ABUNDANCE (#/L)		
VASCULAR PLANT ABUNDANCE		Very abundant
SECCHI DISK TRANSPARENCY (m)		1.5 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	9.1	7.0
BACTERIA (fecal col., #/100 ml) #1		< 10
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m^3): None

CHEMICAL:

Lake: TUXBURY POND
Town: SOUTH HAMPTON

	17 February 1988		3 September 1987		
DEPTH (m)	1.0		0.5		
pH (units)	6.1		6.6		
A.N.C. (Alkalinity)	10.1		11.3		
NITRATE NITROGEN	0.10		< 0.05		
TOTAL KJELDAHL NITROGEN	0.39		0.63		
TOTAL PHOSPHORUS	0.010		0.014		
CONDUCTIVITY (μ mhos/cm)	117.1		117.0		
APPARENT COLOR (cpu)	65		37		
MAGNESIUM			1.49		
CALCIUM			4.9		
SODIUM			13.6		
POTASSIUM			1.10		
CHLORIDE	21		23		
SULFATE	8		4		
TN : TP	48		45		
CALCITE SATURATION INDEX			3.0		

All results in mg/L unless indicated otherwise

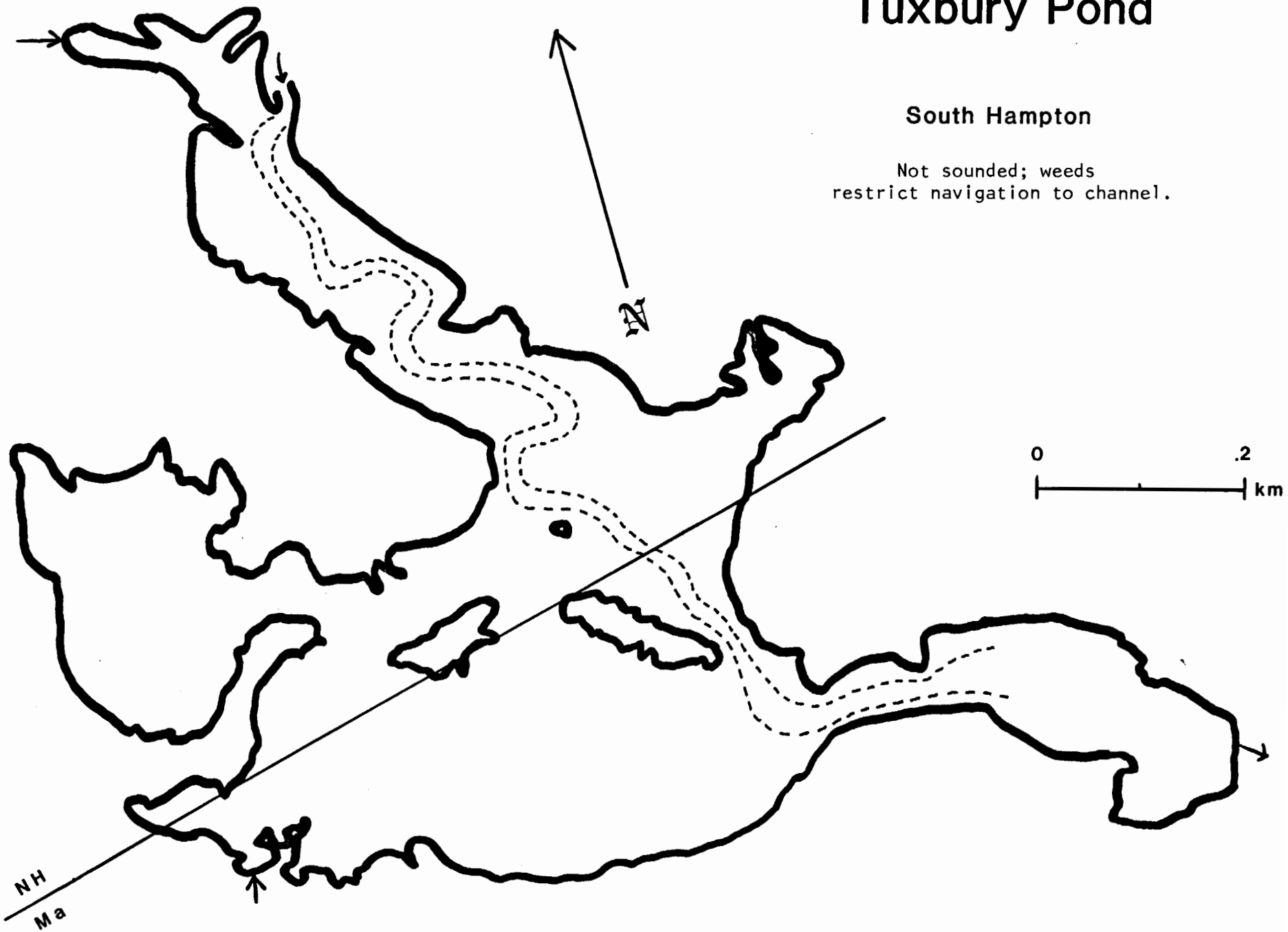
TROPHIC CLASSIFICATION: 1987

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	4	0	6	Meso.

COMMENTS:

1. This is a very shallow, weedy pond; in fact, it was a narrow channel through a wetland area.
2. Water level was 2 feet below the high water mark.
3. No plankton net sample was collected because water was too shallow. A whole-water phytoplankton analysis was not done.
4. This pond is partly in Massachusetts.
5. Pond was not sounded because navigation was restricted by plant growth to a narrow channel.

Tuxbury Pond



South Hampton

Not sounded; weeds
restrict navigation to channel.

FIELD DATA SHEET

LAKE: TUXBURY POND TOWN: SOUTH HAMPTON
DATE: 09/03/87 WEATHER: SUNNY, BREEZE

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	19.1	7.6	81 %
	1.0	18.2	7.4	78 %
	1.5	17.8	7.0	72 %

SECCHI DISK (m): 1.5 VOB

BOTTOM DEPTH (m): 1.5

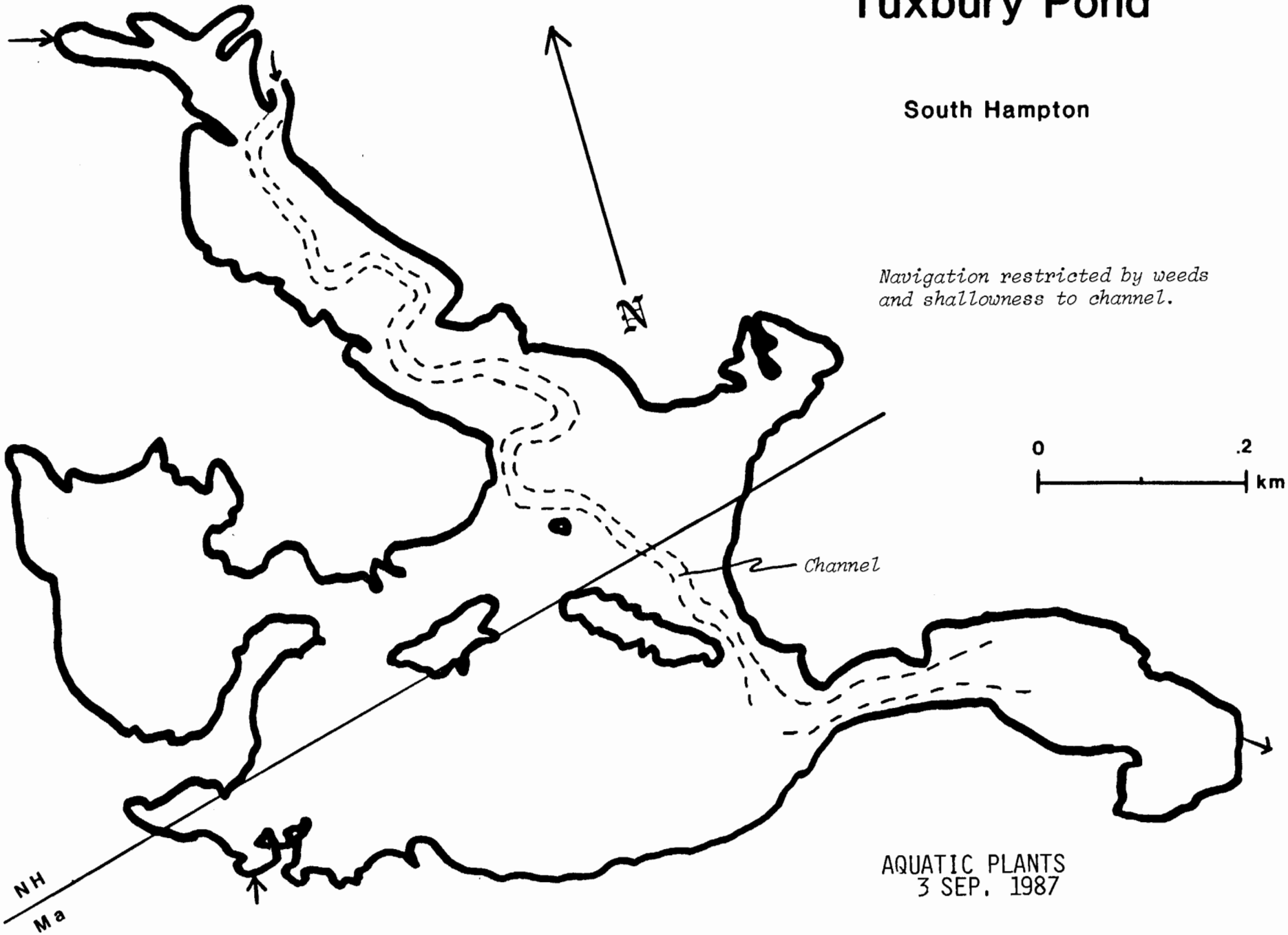
TIME: 1145

COMMENTS:
Secchi disk was visible on bottom at 1.5 m

*Dissolved oxygen values are in mg/L

Tuxbury Pond

South Hampton



AQUATIC PLANT SURVEY

LAKE: TUXBURY POND TOWN: SOUTH HAMPTON DATE: 09/03/87

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
	Brasenia schreberi	Water shield	
	Nymphaea	White water lily	
	Vallisneria americana	Tape grass	
	Myriophyllum humile	Water milfoil	
	Utricularia	Bladderwort	
	Potamogeton	Pondweed	
	Ceratophyllum demersum	Coontail	
	Najas	Bushy pondweed	
	Nuphar	Yellow water lily	
	Sparganium	Bur reed	
	Chlorophyceae	Filamentous green algae	
	Characeae	Stonewort family	

OVERALL ABUNDANCE: Very abundant

GENERAL OBSERVATIONS:

1. Aquatic plants were extremely abundant. Some of the plants observed are listed above but they were too abundant to try to locate on the map. Essentially this is a wetland area with a narrow channel through it.
2. At least 2 different species of pond weeds were present (P. Robbinsii and P. natans).
3. Many ducks were present. Great blue herons, kingfishers and other aquatic birds were observed.
4. Numerous fish (yellow perch, sunfish, minnows) were seen.